

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 07-228194

(43)Date of publication of application : 29.08.1995

(51)Int.Cl.

B60R 1/06

B60Q 3/02

(21)Application number : 06-022542

(71)Applicant : ICHIKOH IND LTD

(22)Date of filing : 21.02.1994

(72)Inventor : IIZUKA KAORU  
OISHI KENICHI

## (54) SIDEVIEW MIRROR ERECTION AND STORAGE DEVICE OF VEHICLE

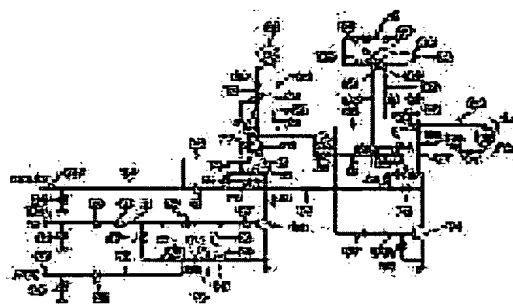
### (57)Abstract:

**PURPOSE:** To erect a sideview mirror simultaneously at the time of lighting a lamp by providing a change-over circuit having a manual switch to erect and store the sideview mirror and to optionally change a supply system to a motor from a second supply system to a first supply system in accordance with a release signal from a remote controller.

**CONSTITUTION:** When a moving contact 78 of a relay 71 is changed over to the side of a fixed contact 76, an electric current flows in the A2 direction and a lamp 26 is lighted. Simultaneously, the electric current flows in the A3 direction, voltage is applied to a base of a transistor 74, and the transistor 74 is put on.

Consequently, the transistor 74 and a relay 78 constitute a change-over circuit to optionally change a supply system of electric power to a motor M2 from a second supply system 53 having a manual switch 98 over to a first supply system 50 in accordance with a unlocking signal S1 from a remote controller.

Consequently, it is possible to erect and store a door by the manual switch 98 and the remote controller and simultaneously put on and off the lamp 26.



## LEGAL STATUS

[Date of request for examination] 25.07.2000

[Date of sending the examiner's decision of rejection] 30.04.2002

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection] 2002-09598

[Date of requesting appeal against examiner's decision of rejection] 29.05.2002

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

**\* NOTICES \***

**Japan Patent Office is not responsible for any damages caused by the use of this translation.**

1.This document has been translated by computer. So the translation may not reflect the original precisely.

2.\*\*\*\* shows the word which can not be translated.

3.In the drawings, any words are not translated.

**[Claim(s)]**

**[Claim 1]** Door mirror standing up and enclosure of vehicles characterized by providing the following The lamp which is formed near the door and illuminates a road surface The 1st supply system which supplies power to the aforementioned lamp and the motor for a door mirror drive The control circuit which receives locking / unlocking signal based on remote control, and controls locking and unlocking of the aforementioned door The energization control circuit which drives the aforementioned motor in the standing-up direction of the aforementioned door mirror while making the aforementioned lamp turn on by receiving the unlocking signal based on the aforementioned remote control, and carrying out predetermined-time ON of the aforementioned 1st supply system, The 2nd supply system which has a manual switch for making the aforementioned door mirror stand up and store, and supplies power to the aforementioned motor, and the switch circuit which switches the supply system to the aforementioned motor with the priority to the aforementioned 1st supply system from the aforementioned 2nd supply system based on the aforementioned unlocking signal

**[Claim 2]** Door mirror standing up and enclosure of the vehicles which it has in the energization control circuit which switches the supply system to the aforementioned motor with the priority to the aforementioned 1st supply system from the aforementioned 2nd supply system by the aforementioned switch circuit, and is driven in the storing direction in the aforementioned door mirror while receiving the locking signal based on the aforementioned remote control and carrying out predetermined-time ON of the aforementioned 1st supply system.

**[Claim 3]** The aforementioned energization control circuit is door mirror standing up and enclosure of the vehicles according to claim 1 or 2 characterized by making the aforementioned 1st supply system turn off compulsorily based on a vehicles start signal.

**[Claim 4]** Door mirror standing up and enclosure of vehicles characterized by providing the following The lamp which is formed near the door and illuminates a road surface The 1st supply system which supplies power to the aforementioned lamp and the motor

for a door mirror drive The control circuit which receives locking / unlocking signal based on remote control, and controls locking and unlocking of the aforementioned door The energization control circuit which drives the aforementioned motor in the standing-up direction of the aforementioned door mirror while making the aforementioned lamp turn on by receiving the unlocking signal based on the aforementioned remote control, and carrying out predetermined-time ON of the aforementioned 1st supply system, The 2nd supply system which has a manual switch for making the aforementioned door mirror stand up and store, and supplies power to the aforementioned motor, and the switch circuit which switches the supply system to the aforementioned motor with the priority to the aforementioned 2nd supply system from the aforementioned 1st supply system based on the aforementioned manual switch [Claim 5] The aforementioned energization control circuit is door mirror standing up and enclosure of the vehicles according to claim 4 characterized by making the aforementioned 1st supply system turn off compulsorily based on a vehicles start signal. [Claim 6] Door mirror standing up and enclosure of the vehicles according to claim 4 or 5 characterized by preparing the short circuit prevention element which prevents a short circuit with the aforementioned 2nd supply system in the aforementioned 1st supply system.

[Detailed Description of the Invention]

[0001]

[Industrial Application] this invention relates to door mirror standing up and enclosure of the vehicles which control lighting and putting out lights of a lamp, and standing up and storing of a door mirror by remote control.

[0002]

[Description of the Prior Art] From the former, in order to enable it to perform the position of a doorknob, and a check underfoot also in darkness night, the equipment which controls lighting and putting out lights of the lamp formed by remote control near the door is known. For example, form a lamp in the body lower part near the door, and receive the door unlocking signal as a remote control signal to JP,62-177864,U, it is made to turn on a predetermined-time lamp, and the technology which illuminates the road surface near the door is indicated. Moreover, while remote control performs locking and unlocking, performing standing-up / storing control of a door mirror is indicated by JP,2-102853,A.

[0003]

[Problem(s) to be Solved by the Invention] the technology of an indication in these

official reports being separate independence, and having made it however, more more desirable in darkness night to perform lighting of the lamp for step lighting, simultaneously standing up and storing of a door mirror Moreover, it is also more desirable from a viewpoint of operability to enable it to perform standing up and storing of a door mirror by the manual switch.

[0004] In view of the above-mentioned situation, it succeeded in this invention, and the purpose is to offer door mirror standing up and enclosure of vehicles which can perform lighting and putting out lights of the lamp for step lighting, and standing up and storing of a door mirror by remote control while being able to make standing up and storing of the door mirror by the manual switch perform.

[0005]

[Means for Solving the Problem] Door mirror standing up and enclosure of the vehicles according to claim 1 concerning this invention The lamp which is formed near the door and illuminates a road surface in order to solve the above-mentioned technical problem, The 1st supply system which supplies power to the aforementioned lamp and the motor for a door mirror drive, The control circuit which receives locking / unlocking signal based on remote control, and controls locking and unlocking of the aforementioned door, The energization control circuit which drives the aforementioned motor in the standing-up direction of the aforementioned door mirror while making the aforementioned lamp turn on by receiving the unlocking signal based on the aforementioned remote control, and carrying out predetermined-time ON of the aforementioned 1st supply system, It has a manual switch for making the aforementioned door mirror stand up and store, and has the 2nd supply system which supplies power to the aforementioned motor, and the switch circuit which switches the supply system to the aforementioned motor with the priority to the aforementioned 1st supply system from the aforementioned 2nd supply system based on the aforementioned unlocking signal.

[0006] Door mirror standing up and enclosure of the vehicles according to claim 4 concerning this invention The lamp which is formed near the door and illuminates a road surface in order to solve the above-mentioned technical problem, The 1st supply system which supplies power to the aforementioned lamp and the motor for a door mirror drive, The control circuit which receives locking / unlocking signal based on remote control, and controls locking and unlocking of the aforementioned door, The energization control circuit which drives the aforementioned motor in the standing-up direction of the aforementioned door mirror while making the aforementioned lamp turn on by receiving the unlocking signal based on the aforementioned remote control,

and carrying out predetermined-time ON of the aforementioned 1st supply system, It has a manual switch for making the aforementioned door mirror stand up and store, and has the 2nd supply system which supplies power to the aforementioned motor, and the switch circuit which switches the supply system to the aforementioned motor with the priority to the aforementioned 2nd supply system from the aforementioned 1st supply system based on the aforementioned manual switch.

[0007]

[Function] If a manual switch is operated, power is supplied to a motor and a door mirror can be made to stand up and store from the 2nd supply system according to door mirror standing up and enclosure of the vehicles according to claim 1 concerning this invention. Next, a control circuit receives locking / unlocking signal based on remote control, and controls locking and unlocking of a door. An energization control circuit will carry out predetermined-time ON of the 1st supply circuit, if the unlocking signal based on remote control is received. Thereby, predetermined-time lighting of the lamp is carried out. Moreover, a switch circuit switches the supply system to the motor for a door mirror drive with the priority to the 1st supply system from the 2nd supply system. Thereby, a door mirror stands up with lighting with a lamp.

[0008] According to door mirror standing up and enclosure of the vehicles according to claim 4 concerning this invention, a control circuit receives locking / unlocking signal based on remote control, and controls locking and unlocking of a door. An energization control circuit will carry out predetermined-time ON of the 1st supply system, if the unlocking signal based on remote control is received. A door mirror stands up at the same time predetermined-time lighting of the lamp is carried out by this. Here, if a manual switch is operated, the power of the 2nd supply system will be preferentially supplied to the motor for a door mirror drive, and a door mirror will drive in the direction by operation of the manual switch.

[0009]

[Example] The example of the road surface lighting system of the vehicles concerning this invention is explained to it, referring to a drawing to below.

[0010] In drawing 1 , the sign 1 shows the door whose sign 2 are vehicles, such as a passenger car, and is a vehicles hatchway. The door mirror 3 is formed in the door 2. Drawing 2 shows the enlarged view of the door mirror 3.

[0011] In the drawing 2 , 4 is the base and 5 is mirror housing. The support shaft which omits illustration is prepared in the base 4. The unit bracket 6 is formed in the interior of the mirror housing 5. The unit bracket 6 makes a support shaft an axial center (see the sign 7 of drawing 2 ), and is a rotatable. The unit bracket 6 and the mirror housing 5

are concluded by the screw member which omits illustration. Moreover, the power unit 8 is formed in the unit bracket 6. As shown in the unit bracket 6 at drawing 3, the mirror bracket 9 is attached with the well-known means. The sign 10 shows the screw cylinder formed in the mirror bracket 9. this screw cylinder 10 -- the pivot receptacle of a semi-sphere configuration -- the member 11 is attached with the screw 12 this pivot receptacle -- a member 11 -- a mirror electrode holder -- that by which a member 13 is supported possible [ rotation ] -- it is -- a mirror electrode holder -- a member 13 -- a pivot receptacle -- the semi-sphere-like crevice 14 of a member 11 and a corresponding configuration is formed the mirror electrode holder -- the mirror 15 is attached in the member 13 A power unit 8 has an output shaft 16. the nose of cam of an output shaft 16 -- a mirror electrode holder -- it connects with a member 13 -- having -- a mirror 15 -- the attitude of an output shaft 16 -- a pivot receptacle -- it is tilted as a two-dot chain line shows by making a member 11 into the supporting-point section The power cord of a power unit 8 and the power cord 17 of the lamp mentioned later are bundled as shown in drawing 2, and they are pulled out outside as a harness 18.

[0012] Opening 19 is formed in the lower part of the mirror housing 5. this opening 19 -- the lamp unit of a rectangular parallelepiped configuration -- it is equipped with a member 20 this lamp unit -- as shown in drawing 4 and drawing 5, profile composition of the member 20 is carried out from the lamp housing 21 and the covering device material 22 The terminal assemblies 23 and 23 of a couple are formed in the lamp housing 21. Terminal assemblies 23 and 23 are being fixed to the pars basilaris ossis occipitalis by clasps 24 and 24. A power cord 17 is connected to the clasp 24, and the connector 25 is connected at the nose of cam of a power cord 17. The terminal assemblies 23 and 23 are equipped with a lamp 26. it attaches in the longitudinal direction both ends of the lamp housing 21, and Itabe 27 and 27 forms -- having -- the adapter plate sections 27 and 27 -- screw insertion -- holes 28 and 28 are formed it attaches in the covering device material 22, and the crevices 29 and 29 for screw arrangement prepare in the part corresponding to Itabe 27 and 27 -- having -- these crevices 29 and 29 for screw arrangement -- screw insertion -- holes 30 and 30 are formed Let the longitudinal direction pars intermedia of the covering device material 22 be the diffusion lens section 31. The covering device material 22 is joined to the lamp housing 21 by adhesion or welding. thereby -- the joint of the covering device material 22 and the lamp housing 21 to water -- a lamp unit -- trespassing upon the interior of a member 20 is prevented it is shown in the peripheral wall of the opening 19 of the mirror housing 5 at drawing 6 -- as -- screw insertion -- the hole 32 is formed a lamp unit -- a member 20 is shown in drawing 2 -- as -- a screw -- it is fixed to the lower part of the

mirror housing 5 by the member 33. Thereby, a lamp 26 is located near the door 2.

[0013] a lamp unit -- the installation structure of a member 20 is not restricted to this structure, and can consider the modification explained below

[0014] drawing 7 -- the lamp unit -- the 1st modification of a member 20 is shown and elastic-deformation Itabe 34 is formed in the longitudinal direction ends at the lamp housing 21. The elastic-deformation Itabe 34 stands up from a pars basilaris ossis occipitalis, and the salient 35 is formed in the point stop escaping. a lamp unit -- a member 20 is fixed to the lower part of the mirror housing 5 by stuffing the lamp housing 21 into opening 19 from an outside

[0015] drawing 8 -- the lamp unit -- the 2nd modification of a member 20 is shown and it considers as the structure of making elastic-deformation Itabe 34 standing up from the joint side of the lamp housing 21

[0016] while being able to aim at curtailment of part mark according to this 1st [ the ] and the 2nd modification -- a lamp unit -- shortening of the installation time of a member 20 can be aimed at

[0017] It is carried out by the circuit indicated to be locking and unlocking of lighting and putting out lights of a lamp 26, standing up and storing of a door mirror, and a door to drawing 9 .

[0018] In the drawing 9 , a sign 36 may be remote control equipment, 37 may be a receiving set, and remote control equipment 36 may be any of a radio formula and an infrared formula. Remote control equipment 36 transmits the electric wave as a unlocking signal and a locking signal, and a receiving set 37 receives the electric wave, and it outputs it to the processing circuit 38. The processing circuit 38 detects the electric wave, and outputs it toward locking / unlocking control circuit 39. Locking / unlocking control circuit 39 judges whether it is unlocking and whether it is locking based on the received electric wave, and outputs unlocking / locking signal toward the door-lock actuator 40 based on the judgment result. The door-lock actuator 40 has the right inversion motor M1, as shown in drawing 10 . The right inversion motor M1 has the function to drive unlocking / locking mechanism. In the drawing 10 , sign E' is DC power supply and a sign 41 or 46 is [ an electric conduction movable plate and the sign 49 of a contact terminal and signs 47 and 48 ] an energization switch.

[0019] Here, drawing 10 shows the connection relation of for example, a locking state, if the unlocking signal S1 is inputted, the door-lock actuator 40 will close the energization switch 49, a fixed time motor M1 will rotate normally, for example, and unlocking of a door 2 will be performed. Later than the unlocking, movable [ of the electric conduction movable plates 47 and 48 ] is carried out in Arrow Y and the direction of Y, and they will



be in the state which can reverse the energization direction to a motor M1. In addition, Kaisei of the energization switch 49 is carried out simultaneously with unlocking of a door 2 here. Moreover, since movable [ of the electric conduction movable plates 47 and 48 ] is carried out by the inertia force of a motor M1, the non-contact state with contact terminals 41-46 is avoided.

[0020] Drawing 11 is drawing showing the detailed circuit of the 1st example of the door mirror standing up and enclosure of this invention, and is set to this drawing 11 . The 1st supply system in which a sign 50 supplies the power of DC12V to a lamp 26 and the motor M2 of the power unit 8 for a door mirror drive, The track to which a sign 51 supplies the unlocking signal S1, the track to which a sign 52 supplies the vehicles start signal ACC, and a sign 53 are the 2nd supply systems which supply the power of DC12V to a motor M2. It is grounded through zener diodes 54-56 in the 1st supply system 50 and tracks 50 and 51. The 1st supply system 50 has branched on the tracks 57 and 58. The diodes 59-61 for antisuckbacks are formed in tracks 51, 52, and 57. The track 51 and the track 52 constitute a part of energization control circuit 62. The energization control circuit 62 has transistors 63 and 64.

[0021] The collector of a transistor 63 is connected to the base of a transistor 64 through the diode 59 for antisuckbacks, and resistance 67 through resistance 65 and 66. The emitter of a transistor 63 is connected to resistance 66 and resistance 65 through zener diode 67 while connecting with a ground. The capacitor 68 is formed in parallel with the zener diode 67. The base of a transistor 63 is connected to the ground through resistance 70 while connecting with the diode 60 for antisuckbacks through resistance 69. Resistance 66 is an object for current-value adjustment, and zener diode 67 is an object for constant-voltage maintenance. The collector of a transistor 64 is connected to the collector of a transistor 74 through the diode 61 for antisuckbacks, and the diode 73 for spike prevention through the coil 72 of relay 71. The diode 75 for spike prevention is formed in the coil 72 in parallel.

[0022] Relay 71 has stationary contacts 76 and 77 and a traveling contact 78. The track 58 is connected to the stationary contact 76. The stationary contact 77 is connected to the stationary contact 82 through the track 81 while connecting with the terminal 80 by the side of the ground of a lamp 26 through a track 79. The traveling contact 78 is connected to the stationary contact 86 through the track 85 while connecting with the terminal 84 by the side of un-grounding [ of a lamp 26 ] through a track 83. Stationary contacts 82 and 86 constitute some relays 87. In addition to stationary contacts 82 and 86, relay 87 has a coil 88, traveling contacts 89 and 90, and stationary contacts 91 and 92. A traveling contact 89 is connected to the terminal 93 of the motor M2 for the drive

of a door mirror 2, and the traveling contact 90 is connected to the terminal 94 of the motor M2.

[0023] The collector of a transistor 74 is connected to the track 57 through the coil 88. The emitter of a transistor 74 is connected to the base through resistance 95 while it is grounded. The base of a transistor 74 is connected to the track 85 through resistance 96 and the diode 97 for antisuckbacks.

[0024] The 2nd supply system 53 has DC power supply E and a manual switch 98. This manual switch 98 is formed near the driver's seat. A manual switch 98 has stationary contacts 99-102 and a traveling contact 103. A stationary contact 99,100 and stationary contacts 101 and 102 cross, and are connected. A stationary contact 101 is connected to a stationary contact 91 through a track 104, and the stationary contact 102 is connected to the stationary contact 92 through the track 105. When the time of connecting a traveling contact 103 to a stationary-contact 99,100 side and a traveling contact 103 are connected to a stationary-contacts 101 and 102 side, the energization direction to a motor M2 serves as a retrose in the time.

[0025] As the light is switched on based on the unlocking signal S1 and a lamp 26 is shown in the unlocking signal S1 at sign (\*\*) of drawing 9, peak value 12V (bolt) and the rectangular pulse of 12ms of pulse width (milli secant) are used. The unlocking signal S1 is inputted into the terminal 106 of the energization control circuit 62. Direct-current-voltage DC12V are impressed to the terminal 107 of the 1st supply system 50. The vehicles start signal ACC is inputted into the terminal 108 of a track 52. If the unlocking signal S1 is inputted into an input terminal 106, a capacitor 68 will reach even the voltage determined by zener diode 67. Thereby, a transistor 64 is turned on. If a transistor 64 turns on, the current shown by the arrow A1 will flow, and a coil 72 will be energized. A traveling contact 78 is switched to a stationary-contact 76 side by this, the current shown in an arrow A2 flows, and a lamp 26 lights up. Thereby, crew can know a road surface situation underfoot and the position of a doorknob.

[0026] When a traveling contact 78 is switched to a stationary-contact 76 side, current flows in the arrow A3 direction, voltage is impressed to the base of a transistor 74, and a transistor 74 is turned on. While the current of the direction of arrow A flows through tracks 50 and 57 in a coil 88, a coil 88 is energized by this and a traveling contact 89 is switched to a stationary-contact 82 side, a traveling contact 90 is switched with the priority to a stationary-contact 86 side. Thereby, the current of the direction of arrow A5 flows on a motor M2, and a door mirror 3 stands up automatically. In addition, the current flows to a ground via arrow A5' and A5'. Therefore, the transistor 74 and the relay 87 are carrying out profile composition of the switch circuit which switches the

supply system of the power to a motor M2 with the priority to the 1st supply system 50 from the 2nd supply system 53 based on the unlocking signal S1.

[0027] The time constant circuit is constituted, the charge accumulated at the capacitor 68 discharges as a base current of a transistor 64, and a capacitor 68 and resistance 65 turn off a transistor 64 after fixed time progress. Thereby, the energization to a coil 72 is stopped and a traveling contact 78 is switched to a stationary-contact 77 side. This switches off a lamp 26. Since a transistor 74 is also turned off simultaneously, the energization to a coil 88 is stopped and traveling contacts 89 and 90 are switched to a stationary-contacts 91 and 92 side, respectively. Thereby, the drive of a motor M2 is also stopped.

[0028] Now, by ON, a transistor 64 presupposes that a motor M2 is driving, while a lamp 26 lights up. At this time, when at least one side of a vehicles start signal (ACC) and a vehicles energization signal is inputted into a terminal 108, voltage is impressed to the base of a transistor 63 through the diode 60 for antisuckbacks, and resistance 69, and a transistor 63 is turned on. The charge accumulated at the capacitor 68 discharges compulsorily in the arrow A6 direction by this, and a transistor 64 is turned off compulsorily. Thereby, the energization to a coil 72 is stopped and a traveling contact 78 is switched to a stationary-contact 77 side. Therefore, a lamp 26 will be switched off if at least one side of a vehicles start signal (ACC) and a vehicles energization signal is inputted even if the 1st supply system 50 is turned off compulsorily and a lamp 26 is lit. Since a transistor 74 is turned off simultaneously, the drive of a motor M2 is also stopped.

[0029] Next, if the traveling contact 103 which traveling contacts 89 and 90 operate a manual switch 98, and has them in a center valve position in the state of connecting with stationary contacts 91 and 92 is connected to a stationary-contact 99,100 side, the current of the direction of arrow A5 will flow on a motor M2 from the 2nd supply system 53, and a motor M2 will drive in the standing-up direction. Moreover, if a manual switch 98 is operated and a traveling contact 103 is connected to a stationary-contacts 101 and 102 side, the current of arrow A6 direction will flow on a motor M2 from the 2nd supply system 53, and a motor M2 will drive in the storing direction. Therefore, even if it does not operate remote control equipment 36, a door mirror 3 can be made to stand up and store, and the part operability improves. In addition, a lamp 26 is not turned on at this time.

[0030] Drawing 12 shows detailed \*\*\*\*\* of the 2nd example of the door mirror standing up and enclosure of vehicles to this invention.

[0031] In this 2nd example, energization control circuit 62' which performs energization

control based on the locking signal S2 in parallel with the energization control circuit 62 which performs energization control based on the unlocking signal S1 is prepared in parallel with the energization control circuit 62. the circuitry of the energization control circuit 62' -- the energization control circuit 62 and a profile -- since it is the same, "" is attached and shown in the number given to the circuit element of the energization control circuit 62, the detailed explanation is omitted to the circuit element corresponding to the circuit element of the energization control circuit 62, and only a different portion is explained to it Here, the same rectangular pulse as the unlocking signal S1 is used for the locking signal S2.

[0032] When a transistor 64 is ON, in order to maintain transistor 64' to an OFF state compulsorily, the unlocking signal S1 is inputted into the base of transistor 63' through the diode 109 for antisuckbacks, and resistance 69'. Moreover, when transistor 64' is ON, in order to maintain a transistor 64 to an OFF state compulsorily, the locking signal S2 is inputted into the base of a transistor 63 through diode 109for antisuckbacks ', and resistance 69. Thereby, the incorrect operation at the time of generating continuously the unlocking signal S1 and the locking signal S2 by operation of remote control equipment 36 can be prevented. Moreover, the track 81 is connected to the base of a transistor 74 through the diode 110 for antisuckbacks, and resistance 96. Traveling contact 78' will be switched to the state of connecting with stationary-contact 76' from the state connected to stationary-contact 77', if current flows to coil 72'.

[0033] In this 2nd example, since the operation of the door mirror standing up and enclosure of vehicles based on the unlocking signal S1 and the operation of a manual switch 98 are the same as that of the 1st example, the explanation is omitted.

[0034] Next, when the locking signal S2 is inputted into terminal 106' by a driver's getting off and operating remote control equipment 36, it charges to the voltage level in which capacitor 64' becomes settled by zener diode 68', and transistor 64' is turned on. Then, current is supplied to coil 72' through the diode 61 for antisuckbacks, and traveling contact 78' is connected to stationary-contact 76'. In addition, in this case, since the transistor 64 is off, relay 71 does not operate but a traveling contact 78 is connected to a stationary contact 77. If traveling contact 78' is connected to stationary-contact 76', it will flow, as the current of the 1st supply system 50 shows by the arrow A7 through a track 81, and voltage will be impressed to the base of a transistor 74. By this, a transistor 74 is turned on, current flows from the 1st supply system 50 in a coil 88, relay 87 operates, and while a traveling contact 89 is switched to a stationary-contact 82 side, a traveling contact 90 is switched to a stationary-contact 86 side. Then, the current of arrow A6 direction flows on a motor M2 through a track 58,

stationary-contact 76', traveling contact 78', a stationary contact 82, and a traveling contact 89, and it drives in the direction in which a motor M2 stores a door mirror 3. The current flows a track 85 in the arrow A8 direction via a traveling contact 90 and a stationary contact 86, and flows to a ground through a traveling contact 78, a stationary contact 77, and a track 79. In addition, in this case, since resistance is strong, a lamp 26 is not turned on. Moreover, transistor 64' is turned off after predetermined-time progress by electric discharge of capacitor 68'. According to this example, since a door mirror 3 is storable with the locking signal S2 of remote control, compared with the case of the 1st example, it excels in operability further.

[0035] Drawing 13 gives the same sign to the circuit element which shows the detailed circuitry of the 3rd example of the door mirror standing up and enclosure of the vehicles concerning this invention, and is shown in drawing 11 , and corresponding circuit element, and the detailed explanation is given to suppose that it omits and explain only a different point.

[0036] In this 3rd example, current is supplied to a lamp 26 through a stationary contact 76, a traveling contact 78, a stationary contact 77, and a terminal 107. If a transistor 64 turns on a traveling contact 71, when current flows in a coil 72, it will be attracted, and will be contacted by stationary contacts 76 and 77. The stationary contact 76 is connected to the base of a transistor 113 through the diode 111 for antisuckbacks, and resistance 112. The collector of a transistor 113 is connected to the stationary contact 77 and the terminal 107 through the coil 115 of relay 114. The diode 116 for spike prevention is connected to the coil 115 in parallel. The emitter of a transistor 113 is grounded.

[0037] Relay 114 has stationary contacts 117-120 and traveling contacts 121 and 122. The stationary contact 117 is grounded. The stationary contact 119 is connected to the stationary contact 77 and the terminal 107. The stationary contact 118 is connected to the terminal 93,102 through the PTC element 122 for short circuit prevention. The stationary contact 120 is connected to the terminal 94,101 through the PTC element 123 for short circuit prevention. The terminal 102 is grounded through resistance 127 while connecting with the base of a transistor 126 through the diode 124 for antisuckbacks, and resistance 125. The collector of a transistor 126 is connected to the base of a transistor 113. The emitter of a transistor 126 is grounded.

[0038] If the unlocking signal S1 is inputted, a transistor 64 will be turned on, a traveling contact 78 will be connected to stationary contacts 77 and 76, and a lamp 26 will be turned on. Simultaneously, DC voltage is impressed to the base of a transistor 113 through a stationary contact 77, a traveling contact 78, a stationary contact 76,

diode 111, and resistance 112, and a transistor 113 turns on. Then, while the current from a terminal 107 flows in a coil 115 and a traveling contact 121 is contacted by stationary contacts 117 and 118, a traveling contact 122 is contacted by stationary contacts 119 and 120. Thereby, the current from a terminal 107 flows in the arrow A8 direction on a motor M2 via a stationary contact 119, a traveling contact 122, a stationary contact 120, and the PTC element 123, and a motor M2 drives a door mirror 3 in the direction which stands up. The current goes to a ground via the PTC element 122, a stationary contact 118, a traveling contact 121, and a stationary contact 117. While a transistor 64 will be turned off like the 1st example and a lamp 26 will be switched off since a transistor 63 turns on if the vehicles start signal ACC is inputted into a terminal 108 during lighting of the lamp 26, the drive of a motor M2 is stopped like the 1st example and the 2nd example.

[0039] If the stationary contact 99 by the side of + potential and the stationary contact 117 by the side of - potential are connected, a manual switch 98 is operated and a traveling contact 103 is connected to a stationary contact 99,100 while the terminal 107 by the side of + potential and the stationary contact 100 by the side of - potential will be connected, if a manual switch 98 is operated during the drive of the lamp 26 and a motor M2 and a traveling contact 103 is connected to a stationary contact 99,100, the supply circuit of the power to a motor M2 will be in a short circuit state. However, if the supply system of the power to a motor M2 will be in a short circuit state, while a short-circuit current will flow toward a stationary contact 100 through the PTC element 123 from a terminal 107, it flows toward a stationary contact 117 through the PTC element 124 from a stationary contact 99. Each PTC elements 123 and 124 generate heat by this, the resistance becomes large, and the 1st supply system 50 of the power from a terminal 107 to a motor M2 is intercepted. Then, the voltage of the 2nd supply system 53 is impressed to the base of a transistor 126, a transistor 126 is turned on, and, thereby, a transistor 113 is turned off. Thereby, Kaisei of the traveling contacts 121 and 122 of relay 114 is carried out, and the 1st supply system 50 is intercepted. On the other hand, the current of the direction of arrow A9 is supplied to a motor M2 from the 2nd supply system 53, and a motor M2 drives in the storing direction. That is, when a manual switch 98 is operated, power is preferentially supplied to a motor M2 from the 2nd supply system 53. Therefore, transistors 113 and 127 and relay 114 carry out profile composition of the switch circuit which switches the supply system of the power to a motor M2 with the priority to the 2nd supply system 53 from the 1st supply system 50 based on a manual switch 98.

[0040] Next, if a manual switch 98 is operated and a traveling contact 103 is connected

to stationary contacts 101 and 102, the current of arrow A8 direction will be supplied to a motor M2 from the 2nd supply system 53, and a motor M2 will drive in the standing-up direction. In addition, in this case, the short circuit of the 1st supply system 50 and the 2nd supply system 53 is not produced.

[0041]

[Effect of the Invention] It does so the effect that remote control can perform lighting and putting out lights of the lamp for step lighting, and standing up and storing of a door mirror while it can make standing up and storing of the door mirror by the manual switch perform, since door mirror standing up and enclosure of the vehicles concerning this invention were constituted as explained above.

[Brief Description of the Drawings]

[Drawing 1] It is the side elevation of the vehicles concerning this invention.

[Drawing 2] It is the front view of the door mirror concerning this invention, and is drawing having shown the part by fracture.

[Drawing 3] It is the cross section which meets the CA-CA line of drawing 2.

[Drawing 4] the lamp unit concerning this invention -- it is the decomposition perspective diagram of a member

[Drawing 5] the lamp unit concerning this invention -- it is drawing of longitudinal section of a member

[Drawing 6] the lamp unit concerning this invention -- it is drawing of longitudinal section for explaining the wearing state to mirror housing of a member

[Drawing 7] the lamp unit concerning this invention -- it is drawing of longitudinal section for explaining the 1st modification of a member

[Drawing 8] the lamp unit concerning this invention -- it is drawing of longitudinal section for explaining the 2nd modification of a member

[Drawing 9] It is the block circuit diagram of the road surface lighting system of the vehicles concerning this invention.

[Drawing 10] It is a circuit diagram for explaining control of door unlocking and locking of the vehicles concerning this invention.

[Drawing 11] It is the circuit diagram showing the detailed composition of the 1st example of the standing up and enclosure of the door mirror of the vehicles concerning this invention.

[Drawing 12] It is the circuit diagram showing the detailed composition of the 2nd example of the standing up and enclosure of the door mirror of the vehicles concerning this invention.

[Drawing 13] It is the circuit diagram showing the detailed composition of the 3rd example of the standing up and enclosure of the door mirror of the vehicles concerning this invention.

**[Description of Notations]**

2 -- Door

3 -- Door mirror

26 -- Lamp

40 -- Control circuit

50 -- The 1st supply system

53 -- The 2nd supply system

74 -- Transistor (switch circuit)

87 -- Relay (switch circuit)

98 -- Manual switch

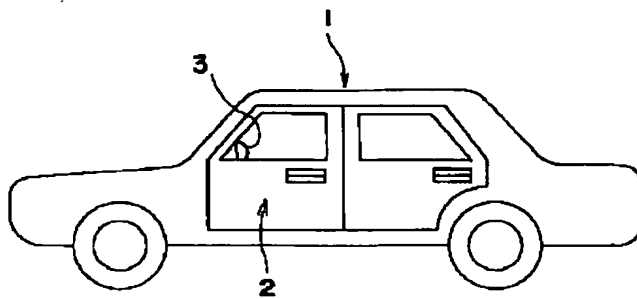
M2 -- Motor

S1 -- Release signal

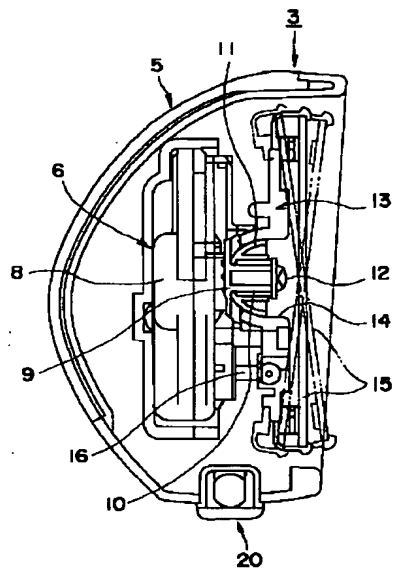
ACC -- Vehicles dispatch signal



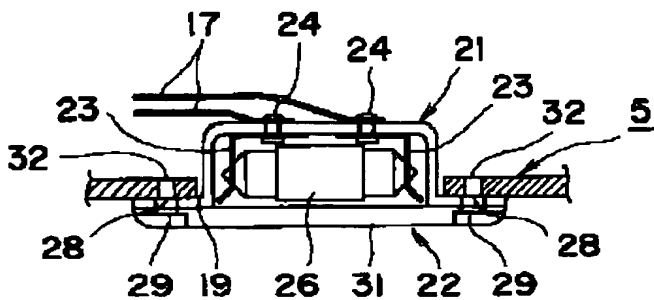
[Drawing 1]



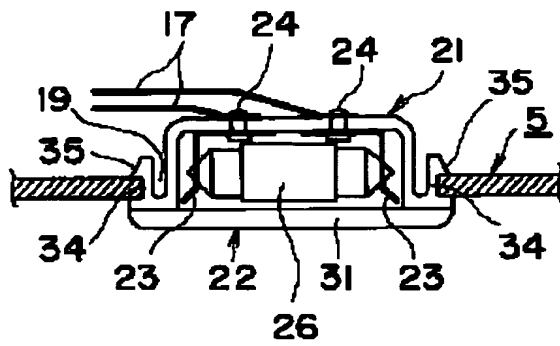
[Drawing 3]



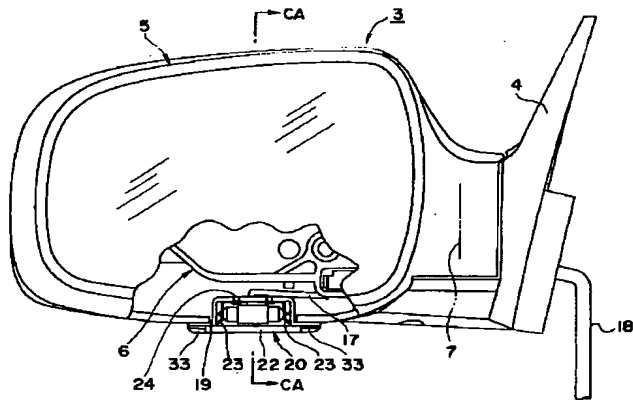
[Drawing 6]



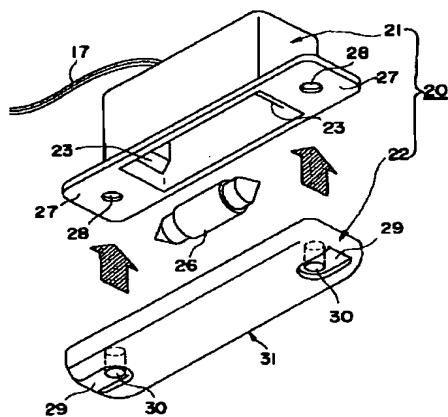
[Drawing 8]



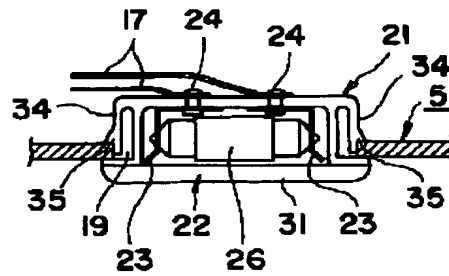
[Drawing 2]



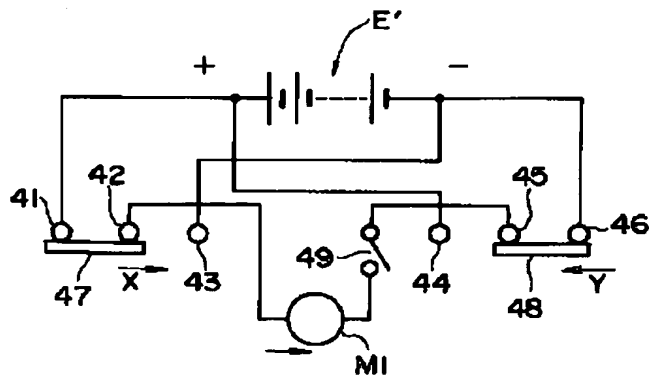
[Drawing 4]



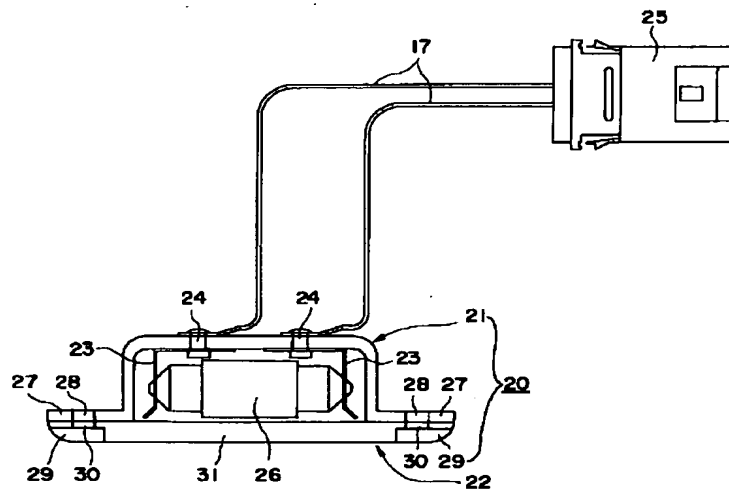
[Drawing 7]



[Drawing 10]

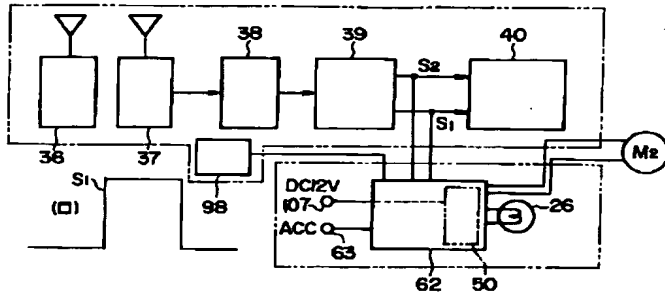


[Drawing 5]

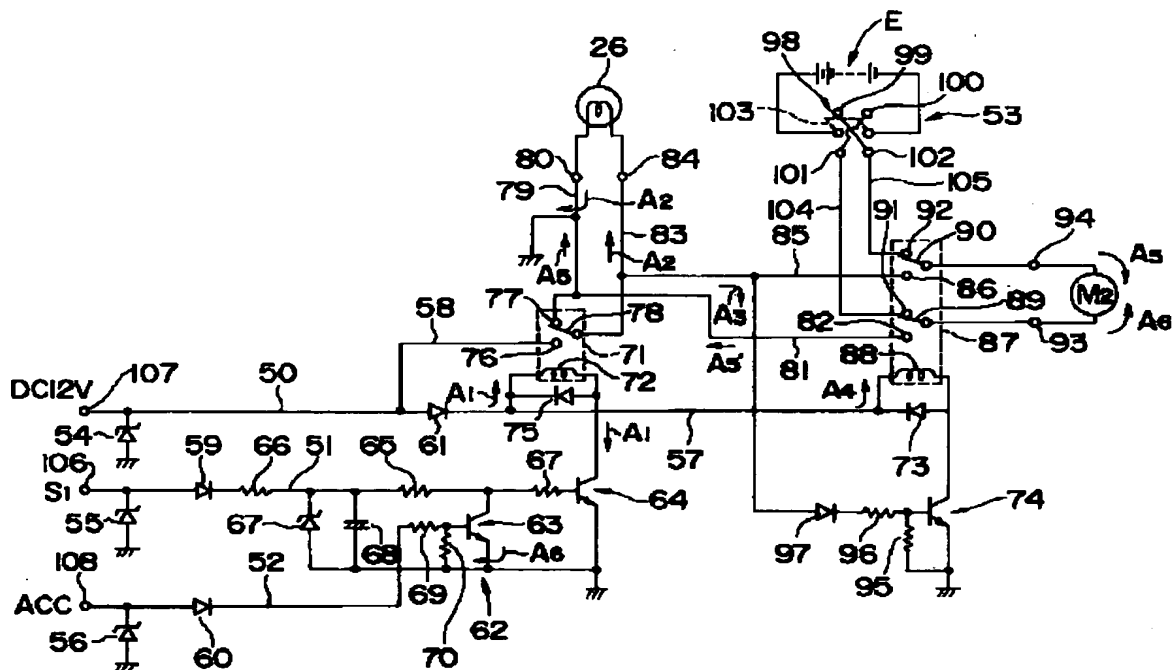


[Drawing 9]

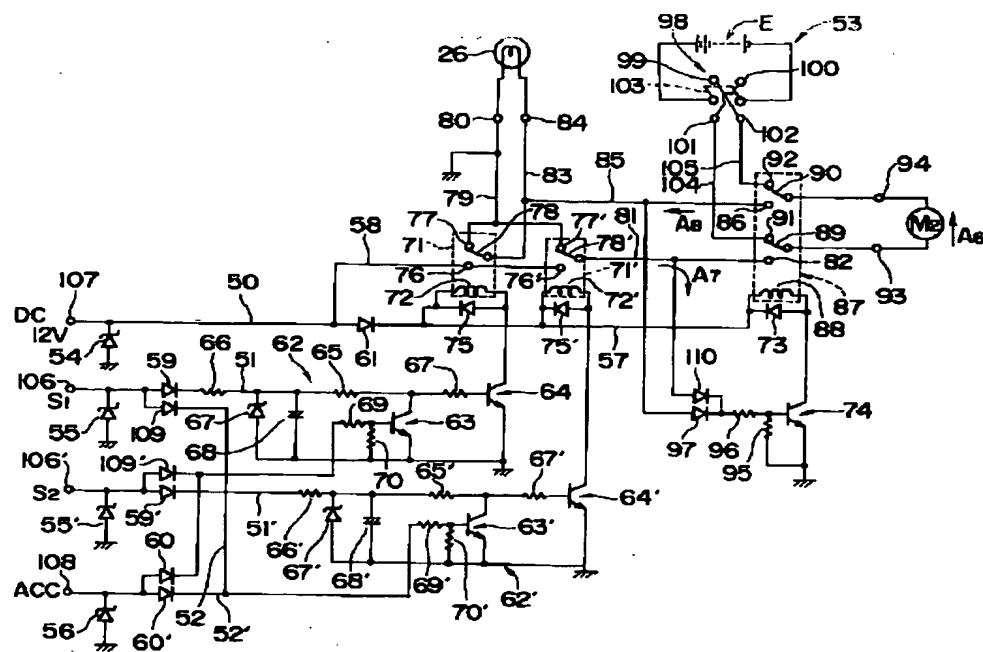
(r)



[Drawing 11]



[Drawing 12]



[Drawing 13]

